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Multi-Color Rotary Printing Machine

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**Patent Claims**

1. Multi-color rotary printing machine,
  - in which one printing plate support (1) each is assigned to the colors to be transferred onto the printing plate, whereby said printing plate support supports a printing plate (6) and
  - said printing plate support (1) can be attached to a mandrel or a cylinder (5) of a rotary printing machine in order to transfer the print image onto the print substrate,
  - whereby the rotary printing machine has register devices (6, 7, 8) that determine the positions of the printing plates (6) with respect to one another

**characterized in that**

the register devices (6, 7, 8) comprise sensors (3) that determine the positions of the printing plate carrier (1) in the printing machine.

2. Multi-color rotary printing machine pursuant to the afore-mentioned claim

**characterized in that**

the register devices (6, 7, 8) comprise a control device (7) that generates register correction signals for the drives of the rotary printing machine based on the positions determined by the sensors (2).

3. Printing plate support (1), particularly printing sleeve (1),

- that supports a printing plate (6) and that can be attached to a mandrel or a cylinder (5) of a rotary printing machine in order to transfer the printing plate onto the print substrate, and

- that (1) contains at least one information carrier (2) from which information can be removed by a sensor (3)

**characterized in that**

the information that can be read out for determining the relative position of the printing plate support on the mandrel or the cylinder (5) of a rotary printing machine.

4. Printing plate support pursuant to the preceding claim

**characterized in that**

the information carrier (2) is arranged outside the printing plate (6).

5. Printing plate support pursuant to any of the preceding claims

**characterized in that**

the information carrier (2) has an oblong, preferably rectangular shape whereby its long side is substantially aligned in the peripheral direction of the printing plate support.

6. Printing plate support pursuant to any of the preceding claims

**characterized in that**

the information carrier (2) surrounds the periphery of the mandrel or the cylinder (5) of the printing machine.

7. Printing plate support pursuant to any of the preceding claims

**characterized in that**

the information carrier (2) is arranged between the printing plate (6) and one edge of the front side of the printing plate of the printing plate support, which is turned toward the front end of the mandrel or of the cylinder (5).

8. Printing form support pursuant to any of the aforementioned claims

**characterized in that**

the information stored on the information carrier can be read out optically, magnetically

or electromagnetically.

9. Printing plate support pursuant to the preceding claim

**characterized in that**

the information carrier (2) comprises a magnetic tape or a sequence of magnetizable individual elements.

10. Process for operating a rotary printing machine pursuant to any of the claims 1 or 2.

11. Process pursuant to the preceding claim

**characterized in that**

a printing plate support (1) is used in accordance with any of the claims 3 to 9.

12. Process pursuant to any of the two preceding claims

**characterized in that**

in addition to the positions of the printing plate support (1), even the position of the print substrate in the rotary printing machine is recorded and used when controlling the drives.